

## REMARKS

In the Final Office Action of May 28, 2008, claims 1, 4, 5, 8, 10, 13-14 and 17 were rejected under 35 U.S.C. 102(c) as allegedly being anticipated by U.S. Patent App. Pub. No. 2005/0009605 A1 (“Rosenberg et al.”). In addition, claims 2, 3, 6, 7, 9, 11, 12, 15, 16 and 18 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Rosenberg et al. or over Rosenberg et al. in view of U.S. Patent App. Pub. No. 2003/0020690 A1 (“Chen et al.”), U.S. Patent No. 6,078,312 (“Liebenow”) and/or U.S. Patent No. 7,046,229 (“Drake”).

In response, Applicants have amended the independent claims 1 and 10 to make minor changes. As amended, Applicants respectfully assert that the independent claims 1 and 10 are not anticipated by the cited reference of Rosenberg et al., as explained below. In view of the claim amendments and the following remarks, Applicants respectfully request the allowance of pending claims 1-18.

### A. Patentability of Amended Independent Claims 1 and 10

As amended, the amended independent claim 1 recites in part “*a memory including a map that specifies said readable pattern in each sub-area on said surface that can be imaged by said imaging element*” and “*a controller configured to compare said image to said map to determine said position of said moveable element,*” which are not disclosed in the cited reference of Rosenberg et al. Thus, the amended independent claim 1 is not anticipated by Rosenberg et al. As such, Applicants respectfully request that the amended independent claim 1 be allowed.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The Office Action on page 3 alleges that the cited reference of Rosenberg et

al. discloses “a memory for storing a map that specifies said readable pattern in each sub-area on said surface that can be imaged by said imaging element (paragraph [0018], U.S. Pat. No. 5,644, 139 (abstract) which is incorporated by reference).” In addition, the Office Action on page 7 states that Allen et al., (U.S. Patent No. 5,644,139) discloses “a memory that stores an image which specifies a readable pattern which is imaged by said imaging element as disclosed in the abstract.” Applicants respectfully disagree.

The cited reference of Rosenberg et al. in paragraph [0018] describes a movement detector 18 of a device 10 for controlling a video game. The movement detector 18 is described in paragraph [0018], lines 10-12, as detecting movement of a reference surface based on comparisons between images of the reference surface that are captured by an imager 16. There is no mention of any memory that includes “*a map that specifies said readable pattern in each sub-area on said surface that can be imaged by said imaging element,*” as recited in the amended independent claim 1.

The cited reference of Allen et al. discloses a scanning device and method for forming a scanned electronic image. In the abstract, the cited reference of Allen et al. states that “the accumulated displacement value obtained from consecutive frames is updated by comparing a current frame with a much earlier frame stored in memory.” However, there is no mention in the abstract that this memory includes “*a map that specifies said readable pattern in each sub-area on said surface that can be imaged by said imaging element,*” as recited in the amended independent claim 1. The memory of Allen et al. stores or includes only an earlier frame, which cannot be equated to the claimed “*map.*” In particular, the stored frame in Allen et al. does NOT specify “*readable pattern in each sub-area on said surface that can be imaged by said imaging element.*” Therefore, the cited reference of Rosenberg et al., which incorporates the reference of Allen et al., does not disclose “*a memory including a map that specifies said readable pattern in each sub-area on said surface that can be imaged by said imaging element,*” as recited in the amended independent claim 1.

Since the cited reference of Rosenberg et al. does not disclose “*a memory including a map that specifies said readable pattern in each sub-area on said surface that can be imaged by said imaging element,*” the cited reference of Rosenberg et al.

also does not disclose “*a controller configured to compare said image to said map to determine said position of said moveable element.*” The comparisons made in Rosenberg et al. and Allen et al. are between captured images and frames, NOT between an image of a sub-area on a surface and a map that specifies said readable pattern in each sub-area on said surface that can be imaged by an imaging element. Thus, the cited reference of Rosenberg et al. also does not disclose “*a controller configured to compare said image to said map to determine said position of said moveable element,*” as recited in the amended independent claim 1.

Thus, the cited reference of Rosenberg et al. does not disclose “*a memory including a map that specifies said readable pattern in each sub-area on said surface that can be imaged by said imaging element*” and “*a controller configured to compare said image to said map to determine said position of said moveable element,*” as recited in the amended independent claim 1. Consequently, the amended independent claim 1 is not anticipated by the cited reference of Rosenberg et al. As such, Applicants respectfully request that the amended independent claim 1 be allowed.

The above remarks are also applicable to the amended independent claim 10, which recites limitations similar to those of the amended independent claim 1. Thus, the amended independent claim 10 is also not anticipated by the cited reference of Rosenberg et al. As such, Applicants respectfully request that the amended independent claim 10 be allowed as well.

#### B. Patentability of Dependent Claims 2-9 and 11-18

Each of the dependent claims 2-9 and 11-18 depends on one of the amended independent claims 1 and 10. As such, these dependent claims include all the limitations of their respective base claims. Therefore, Applicants submit that these dependent claims are allowable for the same reasons as their respective base claims. Furthermore, these dependent claims may be allowable for additional reasons.

Applicants respectfully request reconsideration of the claims in view of the remarks made herein. A notice of allowance is earnestly solicited.

Respectfully submitted,

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